Work Orde Friday, Septembe												Page 1
Item ID: Revision ID:	D3936-1			Accept					-			
Item Name:	Sides					·			\$	Stop		
Start Date: Required Date: Reference:	9/3/2010 9/14/2010	Start Qty: 4.00 Req'd Qty: 4.00			Cust Item I Customer:	D:						
Approvals:	Process Pla	n:	Date://-9-03	Tooling:	Da	nte:]		Start Stop		
	QC:	. ,	Date:	_ SPC (Y/N):	Da	ite:				Stop		
Sequence ID/ Work Center ID)	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Rejec Qty			Insp. Stamp
Draw Nbr	Rev	ision Nbr										
D3936	Α											
100 Waterjet		Memo		0.00				Bic	∑- <u>9-</u> 3⁄	ව _		
FLOW CNC Waterje		1-Cut as pe Dwg Rev:_ Prog Rev:_	irection per dwg***								(4	

110

QC2- Inspect parts off machine FAI/FAIB

0.00

Memo

0.00

1310-9-20

Quality Control

/

Dart Aerospace Lt	a
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W/O:			W	ORK ORDER CHANG	ES					* N
DATE	STEP	PRO	DCEDURE CH	ANGE	E	Зу	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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Part No	•	PAR #:	Fault Cat	egory:	_ NCR:	Yes N	lo DQ	A :	_ Date: _	
	Re	esolution:	Dispositi	on:	_ QA: N	/C Clo	sed:		Date: _	
NCR:		٠	WORK ORI	DER NON-CONFORM	ANCE (NCR)	· · · · · · · · · · · · · · · · · · ·			
DATE	STEP	Description of NC			tion B		Verific	ation	Approval	Approval
	O.L.	Section A	Initial Chief Eng	Action Description Chief Eng		Sign & Date	Secti		Chief Eng	QC Inspector
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Work Order ID 61796

Page 2

Friday, September 03, 2010 1:41:02 PM

Item ID:

D3936-1



Setup Start

Stop



Revision ID:

Start Date:

Item Name:

Required Date: 9/14/2010

Sides

9/3/2010

Start Qty: 4.00

Req'd Qty: 4.00



Cust Item ID: Customer:

Reference:

	_	
Αı	oprovals:	
4 1	JPI U TAIS.	

Process Plan:

Date:

Date:_____

Tooling: SPC (Y/N):

Accept

Date:

Date:

Start Run

Stop

Sequence ID/

Work Center ID

120

QC

Quality Control

Operation Description

QC:____

QC8- Inspect parts - second check

Memo

Set Up/

Run Hours

0.00

Tool ID

Tool # Plan Accept Qty Code

Reject Qty

Reject Insp. Number Stamp

121

Small Fab

Small Fab

Memo

1- C'sink holes as per dwg

0.00

0.00

130

Brake NC Brake NC

Memo

Bend and make joggle as per Dwg

0.00

0.00 \$ 10/09/38

	-								
W/O:			WO	RK ORDER CHAN	GES				
DATE	STEP	PRO	OCEDURE CHAI	NGE	Ву	Da	ate Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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Part No) :	PAR #:	Fault Cate	jory:	NCR: Ye	s No	DQA:	Date: _	
	R	esolution:	Disposition	1:	QA: N/C	Closed	d:	Date: _	
NCR:			WORK ORDE	R NON-CONFORM	ANCE (NO	CR)			
DATE	STEP	Description of NC			ction B	\	/erification	Approval	Approval
DATE	SILF	Section A	Initial Chief Eng	Action Description Chief Eng	Sign Da		Section C	Chief Eng	QC Inspector
					,				

Work Order ID 61796

Friday, September 03, 2010 1:41:02 PM



Page 3

Item ID:

D3936-1

Accept



Setup Start

Stop



Revision ID:

Item Name:

Required Date: 9/14/2010

Sides

9/3/2010

Start Qty: 4.00

Req'd Qty: 4.00

Cust Item ID: Customer:

Reference:

Start Date:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Start Run

Date:

SPC (Y/N):

Set Up/

Date:

Stop

Sequence ID/ Work Center ID

140

Quality Control

Operation Description

QC5- Inspect part completeness to step on W/O

Run Hours

0,01010

Tool ID

Tool # Plan Code

Reject Accept Qty

Qty

Reject Number

Insp. Stamp

144

HandFinish

Hand Finishing

Chemical Conversion Coat per QSI005 4.1

Memo

Memo

Memo

0.00

0.00

146

QC3- Inspect Part Finish

0.00

11A W/061795

Quality Control

W/O:			WORK ORDER CHANGES									
DATE	STEP	PR	OCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector				
Part No) :	PAR #:	Fault Category:	NCR: Ye	s No DQ	A:	Date: _					
	Resolution	:	Disposition:	QA: N/C	Closed:		Date: _					

NCR:		W	WORK ORDER NON-CONFORMANCE (NCR)									
		Description of NC		Corrective Action Section B		Verification	Approval	Approval				
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Chief Eng	QC Inspector				

Work Order ID 61796

Friday, September 03, 2010 1:41:02 PM



Page 4

Item ID:

D3936-1

Accept



Setup Start

Stop



Revision ID:

Start Date:

Item Name:

Sides

Required Date: 9/14/2010

9/3/2010

Start Qty: 4.00

Req'd Qty: 4.00



Cust Item ID:

Customer:

Tool ID

Reference:

Approvals:

Process Plan:

Date: Tooling:

Run

Reject

Qty

Accept

Qty

Start

Reject

Number

Date:

SPC (Y/N):

Set Up/

Date:

Tool # Plan

Code

Date:

Stop



Insp.

Stamp

Sequence ID/ Work Center ID

150

Packaging

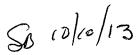
Packaging

Operation Description

Identify as per dwg & Stock Location:



0.00



Run Hours 0.00

160

QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

Memo

0.00

10/10/13/12) MF 10-10-13

W/O:			W	ORK ORDER CHANG	ES			ı	
DATE	STEP	PR	ROCEDURE CH	ANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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DATE	STEP	Description of NC			ion B	Verificat	tion	Approval	Approval
DAIL	SILF	Section A	Initial Chief Eng	Action Description Chief Eng	Sign 8 Date	Section	С	Chief Eng	QC Inspector
					,				

Picklist Print

Friday, September 03, 2010 1:41:07 PM

Work Order ID: 61796

Parent Item: D3936-1

Parent Item Name:

Sides



Start Date: 9/3/2010

Required Date: 9/14/2010

Start Qty: 4.00

Required Qty: 4.00

Comments:

IPP RevA: New issue DD verified by:EC conversion DD 10.02.08 verified by:JLM

IPP RevB: add chemical

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6S.040		Purchased	No			100	sf	86.7300	2.75	11.57895			
			•								1810-	4-36	<u>C</u>

6061-T6 .040 Sheet

Location Loc Qty Loc Code MAT21 86.73 113004 86.73



W/O:			W	ORK ORDER CHANG	GES						
DATE	STEP	PRO	OCEDURE CHA	NGE		Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
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				·							
Part No	•	PAR #:	Fault Cate	gory:	NCF	: Yes	No DQ	A :	Date:		
	R	esolution:	Disposition	n:	QA:	N/C Clo	sed:		Date: _		
NCR:		1	WORK ORD	ER NON-CONFORM	ANCE	(NCR)	- · · · · · · · · · · · · · · · · · · ·			
DATE	CTED	Description of NC			tion B		Verific	ation	Approval	Approval	
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng		Sign & Date	Secti		Chief Eng	QC Inspector	
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DART AEROSPACE LTD	Work Order:	41794
Description: Sides	Part Number:	D3936-1
Inspection Dwg: D3936 Rev: A		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

X First Article Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.098	+0.004/-0.001	100	*		V 1307	
0.300	+/-0.010	306	st		V	
1.200	+/-0.010	1-700	*		V	
8.400	+/-0.010	8,403	×		<	
1.200	+/-0.010	1,198	*		V	
10.100	+/-0.010	10.164	sk		V B PROW	5-02
0.300	+/-0.010	363	×		U	
1.200	+/-0.010	1.700	4		V	
2.100	+/-0.010	2,104	2		V	
0.700	+/-0.010	,766	×		1	
4.698	+/-0.010	4.696	Y		V	., ,
9.900	+/-0.010	9.897	7		V	
1.100	+/-0.010	1,107	×		V	
18.996	+/-0.010	19.996	>		T 4Rol	
2.100	+/-0.010	2.103	¥		(-	
0.700	+/-0.010	1700	y		U	
23.993	+/-0.010	23.493	b			-
2.700	+/-0.010	3 .700	-		V	
0.900	+/-0.010	.903	8		V	
39.198	+/-0.010	39.198	B		T	
0.040	+/-0.010	,040	8		U	

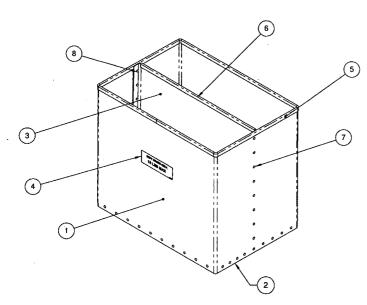
Measured by:	B	Audited by:	Prototype Approval:	N/A
Date:	10-9-20	Date: (clor 22	Date:	N/A
Rev Date	Change		Revised by	Approved

Rev	Date	Change	Revise	d b	<u></u>	ARR	roved
Α	09.09.21	New Issue	KJ	14	七	M	
				7(T	. ~	

W/O:			WO	RK ORDER CHAN	IGES					
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NCR:			WORK ORDE	R NON-CONFOR	MANCE	(NCR	1)			
DATE	STEP	Description of NC	Initial	Corrective Action S Action Descriptio	Section B	Sign 8		cation	Approval	Approval
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H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE

ITEM NO.	QTY. -041	PART NUMBER	DESCRIPTION
1	1	D3936-1	SIDES
2	1	D3936-3	BOTTOM
3	1	D3936-5	DIVIDER
4	1	D3938-3	PLACARD
5	1	D3941-40	RUBBER CUSHION
6	1	D3941-12	RUBBER CUSHION
7	56	MS20426AD3-4	RIVET
8	8	MS20426AD3-5	RIVET



D3936-041 MAPBOX ASSEMBLY

ASSEMBLY INSTRUCTIONS

- BEND D3936-1/-3/-5 PARTS PER SHEETS 2-7.
- POSITION D3936-5 DIVIDER IN PLACE INSIDE THE D3936-1 SIDES AND CLECO IN PLACE.
- POSITION THE D3936-3 BOTTOM IN PLACE AGAINST THE D3936-5 DIVIDER AND INSIDE THE D3936-1 SIDES.
- TRANSFER DRILL 10X ϕ 0.098 (#40 DRILL) HOLES FROM THE D3936-3 BOTTOM TO THE D3936-5 DIVIDER. PLACE CLECOS IN TRANSFER DRILLED HOLES TO MAINTAIN ALIGNMENT AS THEY ARE DRILLED.
- TRANSFER DRILL 38X ϕ 0.098 HOLES FROM D3936-1 SIDES TO D3936-3 BOTTOM. PLACE CLECOS IN TRANSFER DRILLED HOLES TO MAINTAIN ALIGNMENT AS THEY ARE DRILLED
- REMOVE ALL CLECOS AND COUNTERSINK 64X EXTERIOR HOLES Ø 0.179 X 100°. DEBURR ALL HOLES IN ALL PARTS.
- REASSEMBLE PARTS USING CLECOS IN EVERY THIRD HOLE TO MAINTAIN ALIGNMENT.
- RIVET D3936-1 SIDE TO D3936-5 DIVIDER USING MS20426AD3 RIVETS. INSTALL MS20426AD3 RIVETS RANDOMLY THROUGHOUT ASSEMBLY SO THAT ALL PARTS ARE DRAWN TOGETHER
- RIVET D3936-5 DIVIDER TO D3936-3 BOTTOM USING MS20426AD3 RIVETS. INSTALL MS20426AD3 RIVETS RANDOMLY THROUGHOUT ASSEMBLY SO THAT ALL PARTS ARE DRAWN TOGETHER
- RIVET D3936-3 BOTTOM TO D3936-1 SIDE USING MS20426AD3 RIVETS. INSTALL MS20426AD3 RIVETS RANDOMLY THROUGHOUT ASSEMBLY SO THAT ALL PARTS ARE DRAWN TOGETHER
- POWDER COAT ASSEMBLY PER NOTE 2.
- TEST FIT RUBBER CUSHION TO TOP EDGE OF MAPBOX. TRIM AS REQUIRED FOR PROPER FIT.
- REMOVE RUBBER CUSHION.
- APPLY SMALL BEAD OF SILICONE/ADHESIVE TO TOP EDGE OF MAPBOX.
- SLIDE RUBBER CUSHION OVER EDGE AND PRESS INTO SILICONE/ADHESIVE.
- WIPE OFF ANY EXCESS SILICONE/ADHESIVE BEFORE IT DRIES/CURES.
- APPLY D3938-3 PLACARD AS SHOWN.
- ALLOW SEALANT/ADHESIVE TO CURE/DRY 24 HRS BEFORE SHIPPING PART E L E

SHOP COPY

RETURN TO

ENGINEERING

UNCONTROLLED COPS

SUBJECT TO AMENDMENT

WITHOUT NOTICE WORK ORDER

Α NEW ISSUE 09 07 08 REV. DESCRIPTION DATE DESIGN **DART AEROSPACE LTD** DRAWN HAWKESBURY, ONTARIO, CANADA DRAWING NO. CHECKED REV. A D3936 MFG. APPR. SHEET 1 OF 7 APPROVED TITLE SCALE MAPBOX DE APPR. NTS COPYRIGHT © 2009 BY DART AEROSPACE LTD DATE 09.07.08

5) BHEAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3936-041" AND B/N USING A WHITE FINE POINT PAINT MARKER

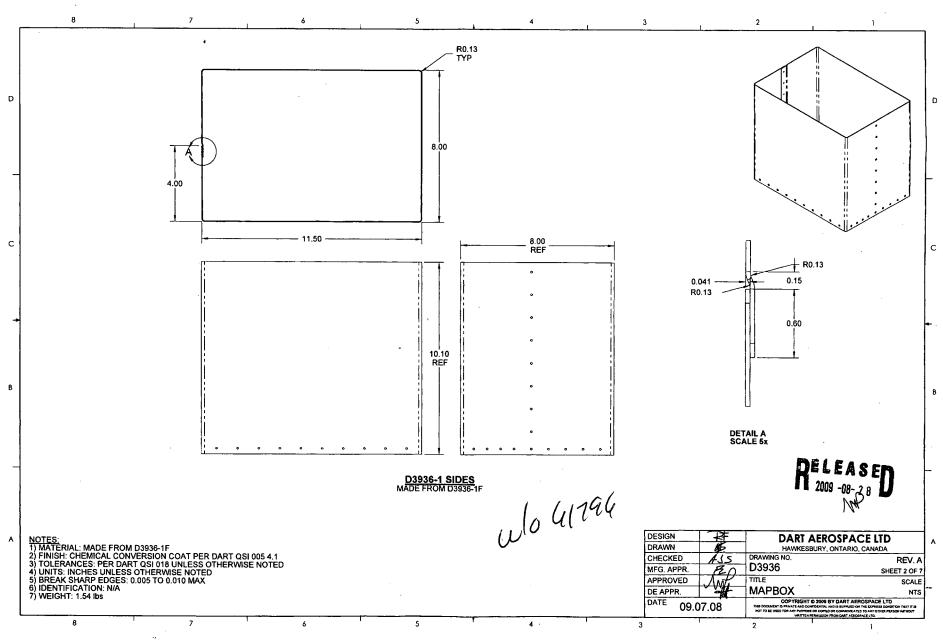
4) UNITS: INCHES UNLESS OTHERWISE NOTED

5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX

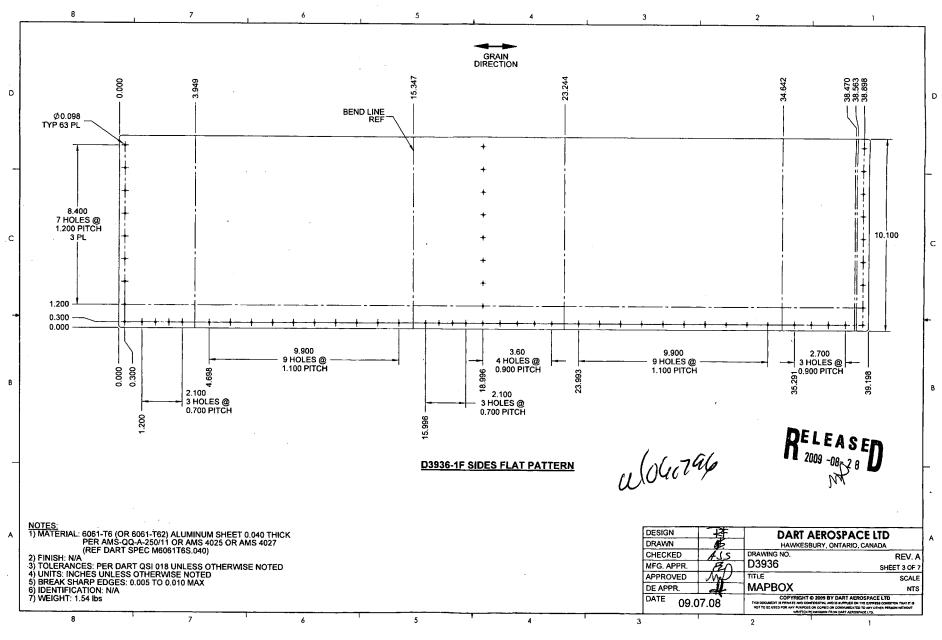
2) FINISH: POWDER COAT "BLACK SANDTEX" (4.3.5.7) PER DART QSI 005 4.3 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED

7) WEIGHT: 2.54 lbs

W/O:		WORK ORDER CHANGES										
DATE	STEP	PRO	OCEDURE CHA	NGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector			
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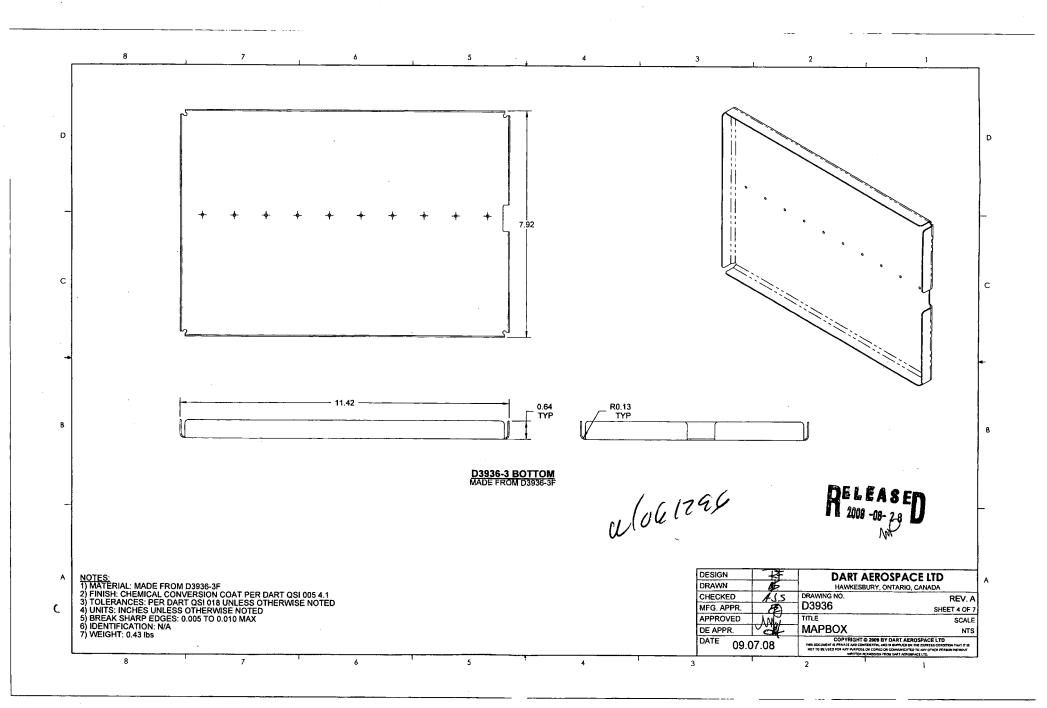
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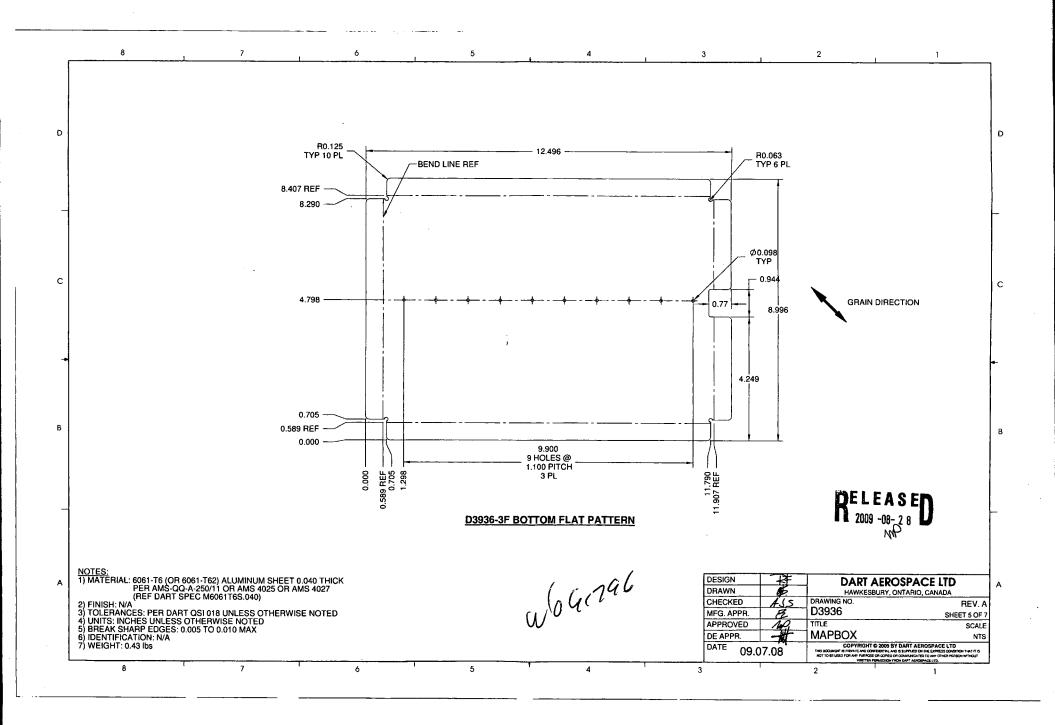
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DATE	STEP	PROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector				
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Part No: _		PAR #:	Fault Category:	NCR: Yes No DQA:	Date:
	Resolution:		Disposition:	QA: N/C Closed:	_ Date:
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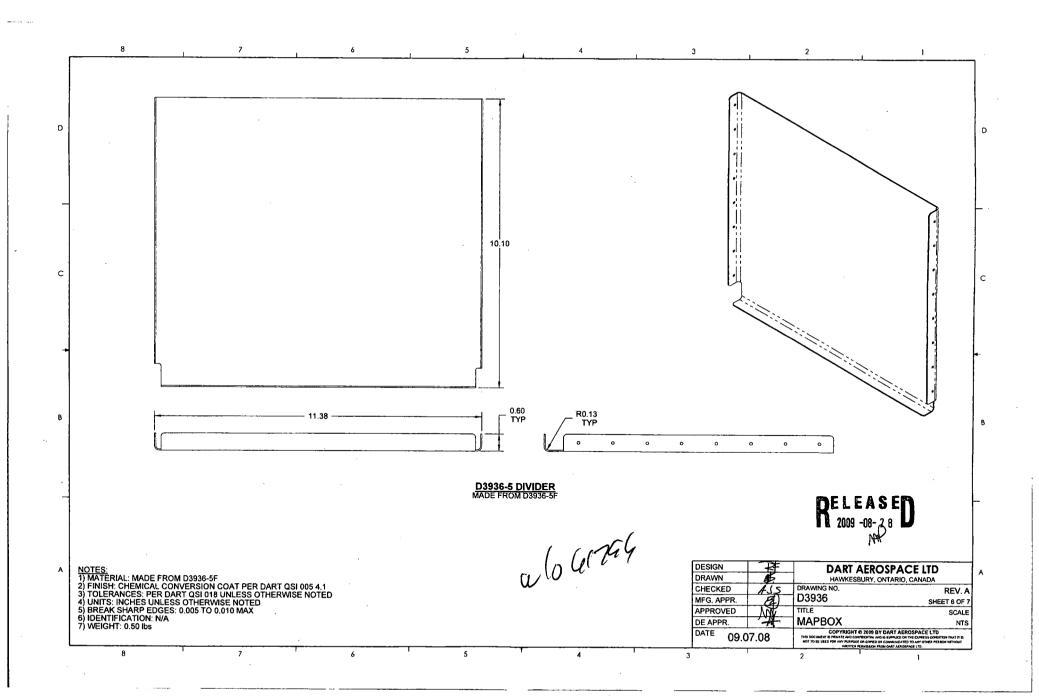
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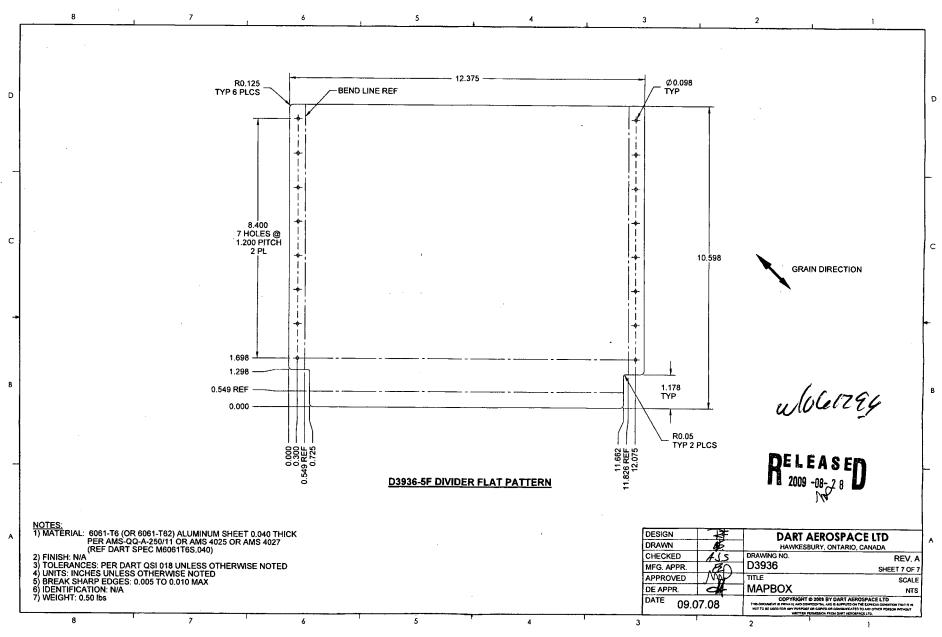
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Part No: PAR #: Fault Category: NCR: Yes No DQA: Date:	
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W/O:		WORK ORDER CHANGES										
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